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country. About twenty houses of different sizes, mostly detached from each other, and built around a square field, neatly hedged in, and ornamented with trees, shrubs, flowers, a fish-pond, gravel walks, &c, form the singularly beautiful Grace-hill: a taste the most exquisite, an elegant simplicity, is apparent in every thing we behold, in their houses, their dress, their manners; but surpassingly lovely where all is beautiful, is the modesty, elegance, and simplicity of the Moravian girls: truly, most truly, did Thomson say, that
 " Bea y when unadorn'd is adorn'd the most."

The Moravians are supposed to have arisen under Count Zinzendorf, a German nobleman, who died in 1760. They are called Moravians, because the first converts to his system were some Moravian families. They in general profess to adhere to the Augsburg Confession of Faith; and direct their worship to our Saviour, personifying every part of his body, even the wound in his side. They are fond of instrumental as well as vocal music in their religious services; and they revive their devotion by morning and evening prayers, and celebrating love feasts. The sexes mix not with each other before marriage, each generally living in houses by themselves; even in their chapel they do not come near each other; hard, hard, this; but still worse, no courting, no choice of the dear object whom we wish to make our partner through life, as the right of contracting marriage rests with the elders: this is hard, but accustomed from infancy to consider marriage in this point of view, it is not so bad as we imagine. However, no matter about their form of worship, or peculiar customs, they appear to possess the true Christian spirit, love of God and man.

M. K.

To the Editor of the Belfast Magazine.

SIR,
 YOU will, doubtless, have observed with pleasure, that a Society has been formed in Dublin, for the exalted and patriotic purpose of reviving a knowledge of our ancient instrument, the Harp. Of the source from whence

the idea originated, there can be but one opinion—that it was the *example of Belfast*; where a number of individuals, worthy of their country's name, had previously associated themselves together, and liberally subscribed for the same most interesting object.

Far be it from me to view the proceedings of the Dublin Harp Society with envy or jealousy. No; success attend their patriotic efforts, and unfading honour be their reward. May the spirits of our ancient bards hover o'er the regenerated strings of the Harp, and inspire the consecrated song of gratitude, swelling their praise in sweet and native strains. But, let it never be forgotten, that *Belfast* led the way—that from her bosom emanated the generous warmth which has recalled to animated existence the famed genius of Irish melody, so long, so shamefully torpid. That in Belfast the first meeting of Irish harpers (procured by the inhabitants at considerable expense) took place in the year 1792. That Bunting of Belfast, whose musical talents are universally admired, was the first to rescue the fast-fading reliques of our tuneful bards from threatening oblivion, and to give the world a complete collection of celebrated and original Irish airs; and, finally, that the first Society for diffusing a knowledge of the Harp, and perpetuating our national music, was instituted in *Belfast*, a society that is entitled to the grateful tributes of Irishmen, and that I doubt not will be honourably recorded in the future annals of our country's taste, science, and glory.

Belfast, August, 1809.

HIBERNICUS.

For the Belfast Monthly Magazine.

A S from the long continued, unfavourable state of the weather there is reason to fear that in some places the grain may be late in ripening, we recommend to our agricultural readers the following observations on this subject, whence it may appear that even under unfavourable circumstances grain will improve, and that caution should be used not to cut down too hastily, from the idea that no further ripening can be expected. Theory and practice appear

to be so judiciously blended in these experiments, that we recommend them to the particular attention of all engaged in inquiries on agriculture.

Extracts from an Essay on the Influence of Frost, and other varieties of bad Weather, on the ripening of Corn.
By the late Benjamin Bell esq.
Trans. Highland Soc. vol. 3

I was induced to consider this subject with attention in Autumn 1782, when at the usual season of the corns in this country being all got home, none of them were ready for cutting in the spring and summer of that year, the weather was for the most part wet and cold, and therefore very unfavourable to vegetation. The crops were accordingly weak during the whole season so that when the frost took place early in Autumn, they were very generally in a situation little able to bear it, few of them except wheat, being at that period better than chaff; and, excepting in well sheltered early grounds, all of them were so green, that there was reason to fear they would not ripen sufficiently either for being used as food, or for seed in the following spring.

I had reason, however, at that time to believe, from having seen that corns in every state of their growth could resist severe degrees of cold, that they would be perfectly fit for seed, if they should become sufficiently full; for I had known corn, even when nearly ripe, exposed repeatedly to frost, without being apparently hurt by it; I also know that corns continue to fill even in frost; and in the course of that season I was much pleased to find, even in the coldest state of the weather, that although the corns did not require their usual ripe appearance, yet in all low situations, that is, in such as were not three hundred feet above the level of the sea, they continued to fill, and at last to become little inferior in bulk to the same kinds of corn in ordinary years.

But, in order to discover the exact degree of maturity that corns can reach while exposed to frost before being ripe, and to learn with certainty, whether corns in this situation, as well as those that are ripe, are rendered

unfit for seed by exposure to frost; various experiments were made, of which the following is an account:

EXPERIMENT 1:

On the first of October 1782, twelve full grown stalks were cut in a field of barley, and twelve in a field of oats. In both fields the crop was entirely green, the corn quite soft, and it did not appear to have been more than a fourth part full, from each stalk twelve seeds were taken, of those that were best filled, being 144 of the oats, and as many of the barley, and after being dried at a moderate heat, the barley and oats were put into separate paper bags and each of them marked No. 1.

On the 20th of October, and again on the 12th of November, the same number of seeds were taken from the same number of stalks, both of barley and oats, gathered in the same fields, and all of them being dried in the same manner with the first, the barley and oats that were cut on the 20th of October were marked No. 2, and the others No. 3.

On the oats being weighed No. 2 was just twice the weight of No. 1, No. 3 was nearly three times the weight of No. 4, and No. 2 as well as No. 3 of barley had improved in a still greater degree. But although the oats and barley of both fields appeared to be tolerably full, when those of No. 3 were cut, they never acquired a ripe appearance. Although neither of the crops were cut, till the end of November, still they continued of a dark colour, and on the corn being dried, none of it was so full as it ought to have been, although all of it yielded more flower or meal than had been expected under the circumstances that I have stated; but on being tried with oats and barley, that were full and ripe neither of them were so heavy by a fourth part.

The oats and barley No. 1, 2, and 3, were kept with the view of discovering how far they were fit for seed; and wishing to know whether the other seeds commonly sown by farmers in this country, were affected in the same manner, trials also were made of them in spring 1783, in comparison with other grain, and the results carefully noted,

From these trials, it appeared that oats and barley, while in a green state, will bear considerable degrees of frost; that they both continue to acquire additional weight although they are exposed to frost, and that this exposure does not destroy the principle of vegetation in either of them: for in experiment two, it was found, that of twenty seeds of barley, and the same number of oats which had been repeatedly exposed to frost, fourteen of the one, and fifteen of the other, speedily germinated, and even that a large proportion of the barley and oats vegetated that were not only exposed to frosts, but that were cut before being half filled, and while they contained therefore but a small proportion of flour or nourishment. Pease and tares as well as clover, appeared by these experiments to suffer more severely by frosts than barley or oats. I knew indeed that this was the common opinion of farmers, and having heard, that farmers in high districts were resolved to sow a much larger quantity of seed on the whole of their grounds than usual, not only of barley and oats, but of pease, tares, and clover, it did not appear that any advantage could be gained by making the result of these experiments public.

The first experiments were made in pots filled with rich garden mould, and placed in a hot-bed. It occurred therefore that they were not carried sufficiently far: they did not even determine the chief point in view, namely the propriety of trusting to seed which had been exposed during its growth, to frost and other varieties of bad weather. That this might be proved with certainty the experiments it was manifest, should be made in an open field, and not by the seeds being forced with artificial heat, and sown in rich mould, which might make seeds vegetate that would not grow in cold, poor grounds, such as many of our corns are too frequently sown in.

It also appeared, that in order to render the experiment fair and decisive, those seeds that were exposed to frost during their growth, and not entirely full, should be compared with those that were full and ripe,

when sown in similar circumstances. With this view, and on these principles, three more experiments were tried, the first in pots of common earth, placed in the field from whence it was taken, and the other two on a considerable scale on the field itself, of which the particulars would too much extend this article.

From these experiments, and others which it is not necessary to enumerate, from the results being nearly the same, the following conclusions may be formed:

1. That barley and oats may be exposed to much variety of bad weather, in every period of their growth, without being destroyed; and that they even continue to acquire additional weight, although frequently exposed to severe degrees of cold, and occasionally, even to frost.

2. Hence, that in late harvests, unripe corn should not be too hastily cut, from an apprehension of its being killed by frost.

3. In order to judge of the effect of frost, and other varieties of bad weather, on corn, and of the progress it continues to make, it should be frequently examined with much care and attention, so that none of it may be cut till its farther increase appears to be at an end.

4. In 1782, as well as other bad seasons, it appeared that corn does not suffer so much from frost, whether before it is cut, or after it, when it is dry, as it does from rain and wet snow. It will bear a great deal of frost, and yet continue to fill; and even when cut, it is not so much hurt by it, if it be dry; but it is soon destroyed entirely, when exposed to much cold rain, or wet snow. This proceeds from its being apt to vegetate when it is wet, which not only renders barley totally unfit for malt, but exhausts the strength of every kind of corn which vegetates under such circumstances. This destructive occurrence is most frequent in close, moist weather. In this state of the atmosphere, even corn that is not cut, and while still in full vigour of growth, sometimes vegetates, especially if it be lodged, and in some wet seasons it happens even to that which never was laid.

5. But though it appears from these experiments, that corns acquire additional weight, even in considerable degrees of cold, it is also evident that exposure to frost renders them very unfit for seed; while every seed of good corn will vegetate and thrive, if placed at a proper depth in a good soil, a proportion of seeds that have been exposed to frost never appear above the surface, and the plants of those that actually vegetate, are so weak, that the crop is not only smaller in quantity, but the corn of inferior quality.

6. Although from these and other experiments, it appears that in using well ripened corn for seed, the crop which it yields depends in a considerable degree on the weight of it; yet this does not happen in any evident degree with corn that has suffered from frost; for the plants arising from corn that has been exposed to much frost are always weak, and the produce small, even although the seed is of the ordinary weight.

7. Frost appears to be still more hurtful to pulse or leguminous plants, such as beans, peas and tares, than to wheat, oats, or barley. In every part of their progress this appears to be the case; for while wheat, oats, and even barley, are frequently exposed to frost in the months of March, April and May, and not unfrequently to slight degrees of it in autumn, without being injured in their growth, this does not happen with any of the varieties of pulse, which are commonly much hurt by it, particularly peas and tares, in every stage of their progress.

All the gasses usually sown in Britain, are likewise much injured by frost, and none of them more than the red or broad leaved clover, which should not therefore be sowed while the frosts in spring continue.

8. Although grain is not much hurt by moderate exposure to frost in spring, it is sufficiently evident, from what has been said, that in autumn it renders it so unfit for seed, that none which has been ever exposed to it should be made use of. If well and properly kept, it may be used for food; but after every season in which much frost has prevailed in harvest, no corn should be sown, that has grown

in high districts; all that is necessary for seed should be got from better climates, either from the south of England, France, or other countries where the crops have not been hurt by frost.

9. Even as a measure of economy, in the first instance, this ought to be done; for in using seed that has been injured by frost, nearly twice the quantity is commonly sown, that the ground requires of good seed, and yet the difference in price seldom amounts to a sixth part. Both in the quantity and quality of the crops which they produce, the difference is also such, that they bear no comparison, for the corn is not only inferior in quality, when the seed has been hurt by frost, but the crop seldom extends to a third part of the produce of good seed.

10. When good corn cannot therefore be procured without difficulty in high districts, as is commonly the case in bad seasons, it would be much for the national interest to have it furnished by public assistance, and given on reasonable terms to those who require it.

11. Corn that has been hurt by frost, snows, or rain, is easily distinguished from good corn, for the latter is plump and full, of a peculiar healthy colour, well known to farmers and dealers in corn, and is commonly free from chaff; whereas the former is shrivelled; for even the best of it is never entirely full, and it appears as if it were bleached, and it does not easily part with the chaff.

12. The capability of vegetating, when sown in a hot-bed, is not a sufficient test of the goodness of seed, though the chief one which seedsmen recommend; for in the experiments it was manifest, that seed may possess the full power of vegetating, and yet be totally unfit to produce a good crop.

13. The cause of this probably is, that seeds, and roots not only require a good soil, to render the plants which they produce healthy, strong, and numerous; but it seems also necessary that they should contain a certain quantity of nutritious matter for their support. This, there is reason to imagine, will prove chiefly useful when they first begin to germinate, a period at which both the tender radicles and stems of plants may be supposed less fit to search for nourishment in the

surrounding elements than they afterwards become; and it is well known, in the rearing of vegetables as well as animals, that no future attention will render them strong, if they are kept weak from a deficiency of food, or any other cause when they are young.

14. The practice of washing seed in brine and other saline infusions, proves useful only by washing off those seeds, that are light and weak and not by any virtue which these articles communicate to the seed.

When light seed is made use of the crops more readily suffer from blight and other diseases; and it appears that many diseases of plants, especially such as give rise to the generation of insects, are particularly apt to communicate the contagion to plants that are weak; which, like animals in a state of debility do not so readily resist contagion, nor the formation of those vermin by which they are most apt to be destroyed, as those that are sound and vigorous.

15. This, accordingly, should be considered as a powerful motive for using only the best corn for seed; a maxim that cannot be too strongly inculcated.

16. For the prevention of the hurtful consequences above recited, none but the best seed of every kind should be sown; with this view, farmers should not only procure seed that has been well ripened, but such as has been well kept, and never injured by frosts, snow, or rain. It would also be much for their interests, to wash the whole of their seed corn and pulse in strong brine, for when properly done it not only carries off all the light grains, but also the seeds of a great many weeds, which cannot in any other way be so completely separated from it.

17. The influence, before mentioned, which the size of seeds has in giving sufficient nourishment to plants, is well exemplified in the culture of potatoes: For it appears, from many well conducted experiments, that crops of potatoes prove *ceteris paribus*, abundant or otherwise, nearly in proportion to the size of the sets; insomuch that ground planted with entire potatoes, generally yields a third more than if sets only of the ordinary

size are made use of. Large crops of potatoes, may sometimes be got even from the smallest sets; but in every fair experiment known to the author, of the two methods of planting, the crop has been uniformly best, where roots of a middling size have been planted entire.

18. As nothing therefore is saved by using small sets of potatoes, but a few bushels per acre, at the time of planting, while the difference of produce runs from one hundred to one hundred and fifty bushels, the practice of planting them in small sets should be discouraged everywhere, precisely for the same reason that heavy, well filled corn, when otherwise in good condition, should in all circumstances be preferred to that which is light.

19. From these experiments as well as others, it appears that the preference commonly given to new corn for seed is not well founded.

By experiments four and five, the produce of old corn, both in quantity and quality, was equal to that of the best corn newly reaped. This also is the case with all the grass seeds, that we commonly sow; one of the best crops of hay that the author recollects to have seen, was obtained from a mixture of red, white, and yellow clover, rib grass, and ray grass, which by accident had been neglected, and kept for six years.—about an acre was sown with this mixture, while the rest of the field was sown with seeds of the preceding year, and the crop was equally good over the whole.

20. Hence in dry warm seasons, when all our grass seeds are commonly good, every farmer who has it in his power, should purchase a large quantity of those that he usually sows, to make use of when other seeds are scarce and bad, which always happens after cold or wet seasons. It is on this principle of seed-retaining their vegetating power for a long time, that we account for the sudden appearance of many of the grasses and other plants, where they had not grown for a long period before. After the great fire in London, in 1666, broom and clover appeared on the site of almost every house

in the space of a few months, although the whole had been occupied by streets for several centuries. We daily perceive in Scotland that white clover appears almost as soon as the heath is destroyed, with which lands had been occupied before : and it is probable that corn, pulse, and grass seeds, if they have been sound and good at first, and properly kept, will be found quite fit for seed, even when a good many years old.

To the Editor of the Belfast Magazine.

SIR,

I FELT much gratified in finding the Report of our Maryborough Institution inserted in your last number. The determination which you have expressed, of turning your attention to matters peculiarly relating to the welfare of this country, is praiseworthy, and deserves every encouragement.

If you should approve of the following trifling, though useful scheme of promoting the health, comfort, and I may venture to add, decent, if not moral conduct, of common labourers, I should be obliged to you to procure its insertion.

I had been struck, as most men of common humanity I presume often have been before, with the misery which many labourers experience in seasons wet or cold, from the insufficiency of clothing, as well as from its frail and tattered texture.

I purchased, in the first instance, a quantity of frize, and had jackets made for my workmen, intending to stop from them, on a settlement, the cost, exclusive, however, of the buttons, &c. which I gave to them as an encouragement to come into my scheme.

I found, however, that it was much easier for me to give them jackets; than for them to pay me the price of them. Some, on getting the jackets, were regardless of paying for them; some were either turned out, or quitted the work; and even those who were honestly disposed felt the weight of the payment, drawn at once from their wages.

I tried this experiment for two or three years; at last I devised the following simple plan:—I had agreed to pay my labourers the standing price of

fifteen pence a day for their work. I took the opportunity of the winter season (when I knew that they would not leave me) to inform them of my determination, that I would pay but thirteen pence a day, but that in case of good behaviour I should give them a gratuity of two pence additional a day, reserving to myself the privilege of appropriating this money as I chose. By this means I avoided the possibility of being obliged to pay this additional two-pence a day, which I might have been compelled to, had it been stopped out of wages; and I constantly was enabled to hold a tight reign over my workmen; and it is sufficiently plain that none would leave my work as long as they had a considerable sum depending upon their staying with me—I was enabled farther to check them in drunkenness.

My steward now keeps, in his workmen's account book, a running account of the *total* number of days (which requires but one column, and which is the chief trouble) each man has worked. Whenever a settlement is necessary, it is only referring to this column, which is continued from week to week, and the sum is at once seen to which each man is entitled. I am enabled by this means to clothe my workmen without expense to myself, or, I may venture to add, without much expense to *themselves*. I consider that scarce a man of them feels inconvenience by this arrangement, as, in fact, a considerable part of the price of the jacket would most probably be squandered. The jacket is made of frize, lined with drugget; it is fashioned after a shooting jacket, meeting close round the throat, and close round the middle of the thigh, being cut straight, consequently the breast, the most important part of the body, is completely covered and protected. The prime cost of the jacket complete, in our country, near which the frize is manufactured, is about fourteen shillings. I buy the frize in the piece, which causes a material saving to the labourer. I generally have had them made and delivered to them about the beginning of winter. The month of October would be the best season, by which means they have the full benefit of a